Degree: Biochemistry, B.A. 25-26				
Requirement Area	**Course**	**Course Title**	**Prerequisites**	**Units**
First Semester (FALL)				
Recommended	SCI 130	Connecting to STEM Majors		2
1C		Oral Communications		3
5A/LD Major	CHEM 111	General Chemistry I		3
5C/LD Major	CHEM 111L	General Chemistry Lab I		2
Area 2/LD Major	MATH 130	Calculus I	One from the following: Satisfactory score of 78 or higher on Mathematics Placement Exam, MATH 120 or MATH 125 (either course with grade C- or better).	4
Area 4/CODE 1		Social Science/US Code		3
			Total:	17
Second Semester (SPRING)				
1A		Written Communication		3
3A		Arts		3
LD Major	MATH 131	Calculus II	MATH 130 with grade C- or better.	3
LD Major	CHEM 112	General Chemistry II	CHEM 111 with grade C- or better.	3
LD Major	CHEM 112L	General Chemistry II Lab		2
			Total:	14
Third Semester (FALL)				
1B/Second Comp		Critical Thinking and Composition		3
UD Major	CHEM 331	Organic Chemistry I	CHEM 112 with grade C- or better	5
B2/LD Major	BIOL 140A	Principles of Cell and Molecular Biology		5
			Total:	13
Fourth Semester (SPRING)				
Free Elective				3
LD Major	BIOL 140B	Principles of Organismal Biology	BIOL 140A with grade C- or better.	5
LD Major	CHEM 220	Quantitative Analysis	CHEM 112 with grade C- or better.	4
UD Major	CHEM 332	Organic Chemistry II	CHEM 331 with grade C- or better.	5
			Total:	17
Fifth Semester (FALL)				
3B		Humanitites		3
Free Elective				3
UD Major	CHEM 441	Biochemistry I	CHEM 332 with grade C- or better.	4
B3/LD Major	PHYS 125	Principles of Physics I		4
UD Major	CHEM 443	Biochemistry Laboratory I		3
			Total:	17
Sixth Semester (SPRING)				
UWR				3
LD Major	PHYS 126	Principles of Physics II	PHYS 125	4
UD Major	CHEM 442	Biochemistry II	CHEM 441 with grade C- or better.	4
UD Major	CHEM 444	Biochemistry Lab II	CHEM 443 with grade C- or better.	3
			Total:	14
Seventh Semester (FALL)				
UD-Area 5/Overlay			Completion of GE Areas 1A, 1B, 1C and GE-2 with grade C- (CR) or better	3
D2Code 2				3
F		Ethnic Studies		3
UD Major	CHEM 350	Biophysical Chemistry	CHEM 112, MATH 131, and PHYS 126 or PHYS 136, all with grade C- or better.	3
UD Free Elective				3
			Total:	15
Eighth Semester (SPRING)				
UD-Area 3/Overlay			Completion of GE Areas 1A, 1B, 1C and GE-2 with grade C- (CR) or better	3
UD-Area 4/Overlay			Completion of GE Areas 1A, 1B, 1C and GE-2 with grade C- (CR) or better	3
UD Major		Biochemistry elective		3
UD Major	CHEM 470	Chemical Literature	CHEM 332 with grade C- or better.	1
UD Free Elective				3
			Total:	13
Total Units:				120

Note: No changes to, or from, the credit/no credit pattern are permitted after the Grade Type Change period. There are no exceptions to this rule. Courses in a student's major department, regardless of course prefix, may not be taken "CR/NC," unless that is the only grading pattern in the course.

CSUEB General Breadth and Graduation Requirement Checklist
Area 1 (9 units): English Communication
☐ 1A - Lower Division English Composition
☐ 1B - Lower Division Critical Thinking and Composition
☐ 1C - Lower Division Oral Communication
Area 2 (3 units) : Mathematical Concepts and Quantitative Reasoning
☐ Area 2 - Mathematical Concepts and Quantitative Reasoning
Area 3 (6 units): Arts & Humanities - Minimum of two different disciplines as designated by course prefix (e.g., ART, THEA, MUS)
☐ 3A - Arts and Humanities (Arts)
☐ 3B - Arts and Humanities (Humanities)
Area 4 (6 units) : Social and Behavioral Sciences - Minimum of two different disciplines as designated by course prefix (e.g., ANTH, ECON, POSC)
☐ Area 4 - Lower Division Social and Behavioral Sciences
☐ Area 4 - Lower Division Social and Behavioral Sciences
Area 5 (7 units): Physical and Biological Sciences
☐ 5A - Lower Division Physical and Biological Sciences (Physical)
☐ 5B - Lower Division Physical and Biological Sciences (Biological)
☐ 5C - Lower Division Physical and Biological Sciences (Laboratory) -- May be embedded in 5A or 5B course, as long as 7 units met for lower-division Subject Area 5.
Area 6 (3 units): Ethnic Studies
☐ Area 6 - Ethnic Studies
cond Composition : Second Composition (Required as part of 1B for 2025-26 or later catalog)
☐ Second Composition
University Writing Requirement (3-4 units)
☐ UWR
U.S. Code (American Institutions Requirement) - Two courses (6 units) covering three U.S. Code Requirements of US-1 (U.S. History), US-2 (U.S. Constitution), and US-3 (California State & Local Government).
☐ Code 1
☐ Code 2
Upper Division GE Requirements (9 units): Should be taken after completion of 1A, 1B, 1C, and Area 2 with a C- (CR)
☐UD- Area 3 - Upper Division Arts or Humanities
☐ UD- Area 4 - Upper Division Social and Behavioral Sciences
☐ UD- Area 5 - Upper Division Science or Mathematical Concepts/Quantitative Reasoning
Overlay Requirements (9 units): Courses may be upper or lower division, and GE or major
☐ Diversity (Div)
☐ Social Justice (SJ)
☐ Sustainability (S)
Additional Courseswork
Students NOT taking the Chemistry concentration are required to complete a minimum of 6 units of coursework as outlined below.
The following 3 units of labwork is required:
CHEM 444 - Biochemistry Laboratory II Units: 3
Plus, choose a minimum of three (3) units from the following:
BIOL 310 - Genetic Analysis I Units: 4
CHEM 445 - Protein Structure Units: 3
CHEM 446 - Nucleic Acid Chemistry Units: 3
CHEM 447 - Major Organ Biochemistry Units: 3